

STUDY TITLE: Commercial Fishing Harvest and Employment Forecast.

REPORT TITLE: Commercial Fishing Industry of the Gulf of Alaska (**TR-159**).

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SPONSORING OCS REGION: Alaska

APPLICABLE PLANNING AREA(S): Aleutian Arc, **Shumagin**, Kodiak, Cook Inlet, and Gulf of Alaska,

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KEY WORDS: Gulf of Alaska; commercial fishing; Cordova; Dutch **Harbor**; Homer, King Cove; **Kenai**; Kodiak Seward; **Unalaska**; Yakutat.

BACKGROUND: The Gulf of Alaska is a frontier area for Outer Continental Shelf (**OCS**) petroleum exploration and an area of bountiful fisheries harvests in the North Pacific. In addition to a number of investigations about the physical environment of the Bering Sea, the Minerals Management Service (**MMS**) has conducted five studies since 1980 to predict and analyze potential impacts and changes in commercial fishing due to oil and gas activities. **MMS** also conducts economic and demographic forecasts for the regions and communities that may host onshore **OCS** activities. The commercial fishing industry is the most important and most volatile economic sector in the region in terms of its contribution to **MMS** forecasts. Any assessment of prospects for economic growth among the communities is dependent upon an accurate understanding of the importance of the fishing **industry**.

The purpose of this study is to provide **MMS** with an update of **the** earlier commercial fishing studies with the focus on contribution of the industry at the community level. The study examines the overall status of the commercial fishing industry in the Gulf of Alaska, identifies the share of the **industry** captured by the several principal ports, and develops a forecast of the commercial **harvest** and fishing related employment.

OBJECTIVES: (1) **Describe** the current status of the Gulf of Alaska fishing **industry** and the nature of the involvement of the principal Alaska communities that participate in it, and (2) provide a forecast of future harvest levels and employment for both the industry and the principal fishing communities.

DESCRIPTION: The Gulf of Alaska study area defined by MMS includes state and federal waters within the 200-mile fishery **conservation** zone and bound to the east by the Southeast Alaska Archipelago, **southcentral** Alaska and the Kenai Peninsula to the north, and the Alaskan Peninsula and the Aleutian Islands to the west. Communities addressed in this study include Cordova, Homer, Kenai, King Cove, Kodiak, Seward, **Unalaska/Dutch** Harbor, and **Yakutat**.

A literature review, field work in the study communities, and unpublished computer data base files obtained by MMS from the Alaska Commercial Fisheries **Entry** Commission and National Marine Fisheries Service were used to describe the Gulf of Alaska fishing industry, and the relationship of the industry to the study communities.

SIGNIFICANT CONCLUSIONS: Based on review of the literature, discussions with industry and agency personnel, and development of a simulation model of the Alaska fishing industry, researchers concluded that the economic base of most Gulf of Alaska communities is dependent on the local fishing fleets and processing plants. The present high utilization levels for major fishery stocks will exacerbate any downturn in resource levels because, with the exception of **very** low-value species, there are no new fisheries **left** to exploit and **competition** for remaining stocks will **increase**.

With the exception of Kodiak and **Unalaska/Dutch** Harbor, the fishing industry in coastal communities is dependant upon the traditional salmon **fishery** for most of its revenues. Many fishers have altered their boats from single-purpose salmon fishing boats to **combination** boats that can pursue other species in order to **increase income** and offset the volatility associated with reliance upon a single species. The **industry** in Kodiak and **Unalaska/Dutch** Harbor are more oriented to the groundfish and crab fisheries although salmon is a significant contributor to annual harvests in Kodiak. The groundfish industry trawl fleet is primarily dependent upon walleye **pollock** for its financial health, and the **crab** fleet is supported mainly by C. **opilio** crab.

STUDY RESULTS: In general, salmon abundance in the area is near its historic peak although variability exists in many management areas. Groundfish stocks are at low levels of abundance although management efforts are resulting in some stock increases. Crab stocks are also at low levels of abundance. Some increases in abundance are being noted in C. **Opilio** and Dungeness stocks.

Study area residents are primarily salmon fishermen. Local residents use their salmon vessels to pursue herring, halibut, **sablefish**, and Pacific **cod** to a lesser degree. The trawl fleet and the larger vessels in the crab fleet primarily involve vessels from Kodiak and **Unalaska/Dutch** Harbor.

Processing plants in **Unalaska/Dutch** Harbor primarily handle crab and groundfish. Other plants in the study area focus on salmon although other species may be processed. Plants in

Kodiak handle all species harvested in the Gulf of Alaska. Most processing plant employees are nonresidents of the State and the local community.

Local communities have an interest in maintenance of the fisheries resource base and the health of the fishing fleets because commercial fishing and processing are major sources of employment and wage and non-wage income. In rural communities, the lack of other employment opportunities makes fishing income and employment even more important.

Local taxation of processed and landed products, and the raw fish tax which the state shares with communities are major sources of income. These revenues fund local government jobs, services, and public works improvements, and also contribute to municipal permanent funds in some communities.

The presence of a significant fishing industry improves the quality of life in **local** communities by 1) providing employment and income, 2) creating municipal revenues, 3) providing **demand-**based justification for state funding of capital projects, and 4) providing a user base (fleet and processors) which generates service charge revenues to cover or assist with operations and maintenance costs and amortization of **infrastructure**.

STUDY PRODUCTS: Burden, P., J. **Isaacs**, W. Jensen, H. Radtke, and J. Richardson. 1994. Commercial Fishing Industry of the Gulf of Alaska. A final report by Northern Economics, Jon **Isaacs** and Associates, **ResourceEcon**, and Resource Valuations, Inc. for the U.S. Department of the Interior, Minerals Management Service, Alaska **OCS** Office, Anchorage, Alaska. Contract No. 14-35-0001-30505.

Microcomputer-based spreadsheet model of the Gulf of Alaska fishing industry. Available from the **Social** and **Economic** Studies Program unit, Alaska OCS Office, Anchorage, Alaska.

Principal Investigators affiliation may be different than that listed for Project Manager.